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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,772	06/01/2001	Steven C. Zimmel	2316.1424US01	1230

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EXAMINER

HYEON, HAE M

ART UNIT PAPER NUMBER

2839

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,772

Applicant(s)

ZIMMEL, STEVEN C.

Examiner

Hae M Hyeon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 29 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on April 29, 2003. These drawings are approved.

Claim Objections

2. Claim 1 is objected to because of the following informalities: Claim 1, line 10, the examiner suggests the applicant to insert -- of -- before "the first ferrule end" and before "the second ferrule end."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6-9, 14-16, 21, 26-28, 31, 33, 34, 37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard et al (5,317,663) in view of Takahashi (6,341,191 B1).

Beard (Figures 1-4) shows all the features of these claims except the attenuation hub and the sleeve being into two pieces.

Takahashi discloses an attenuation hub comprising a first ferrule end 8 and a second ferrule end 9, a midpoint and an axial opening including an optical fiber 10 and 11 defining an

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optical path from an outer face of the first ferrule 8 end of the hub to an outer face of the second ferrule 9 end of the hub. The first and second ferrule ends are fixed in position with respect to each other. Takahashi teaches that the attenuator permits easier adjustment of the amount of optical attenuation and it is able to securely maintained an adjusted or set amount of attenuation.

Regarding the sleeve, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the sleeve into two pieces in order to accommodate two ends of the attenuation hub with two optical fiber connectors.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the attenuation hub in the adapter of Beard because the attenuator permits easier adjustment of the amount of optical attenuation and it is able to securely maintained an adjusted or set amount of attenuation as taught by Takahashi.

5. Claims 2-4, 10-12, 17-19, 22-24, 29, 30, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard et al and Takahashi as applied to claims 1, 6-9, 14-16, 21, 26-28, 31, 33, 34, 37, 40 and 41 above, and further in view of Satoshi (JP-08122531).

Claims 2, 10, 17, 22, 29 and 35 recite that the optical fiber of the attenuation hub to be continuous segment from the first end of the attenuation hub to the second end of the attenuation hub. Claims 3, 11, 18, 23 and 36 recite that the optical fiber of the attenuation hub includes two segments fused to each other within the attenuation hub. However, Takahashi only discloses two separated segments of optical fibers 10 and 11 in the attenuation hub.

Satoshi discloses an attenuation hub including space parts 5a and 5b (air gap) and two segments of optical fibers 2a and 2b fused at the middle of the attenuation hub to form a continuous optical segment that extends from one end of the attenuation hub to the other end of

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the attenuation hub. Satoshi teaches that the fused optical fibers 2a and 2b give an optical attenuation effect when an optical transmission loss is brought about between two optical fibers 2a and 2b.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the optical fibers of the attenuation hub taught by Takahashi such that they would be fused to each other within the attenuation hub to give an optical attenuation effect when an optical transmission loss is brought about between two optical fibers.

6. Claims 5, 13, 20 25, 32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard et al and Takahashi as applied to claims 1, 6-9, 14-16, 21, 26-28, 31, 33, 34, 37, 40 and 41 above, and further in view of Fumio (JP-62121405).

Claims 5, 13, 20, 25, 32 and 38 recite that the attenuation hub includes two segments of the optical fibers and a filter is mounted between the two segments of the optical fibers. However, the attenuation hub of Takahashi does not include a filter between the two segments of the optical fibers 10 and 11.

Fumio discloses an attenuation hub including a filter 4 interposed between two segments of the optical fibers in two ferrules 2a and 3a. Fumio teaches that the attenuation hub having the filter 4 provides an extremely higher precision than those attenuation hubs made by the conventional process.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the attenuation hub taught by Takahashi such that it would have a filter to interpose between two segments of the optical fibers in the attenuation hub as taught by Fumio to provide an extremely higher precision.

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Response to Arguments

7. Applicant's arguments with respect to claims 1-41 have been considered but are moot in view of the new ground(s) of rejection.

The newly discovered reference by Takahashi teaches the first and second ferrule end s being fixed in position with respect to each other as required by the amendment.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,651,085 by Chia, US Patent No. 5,677,976 by Takahashi, US Patent No. 5,706,379 by Serafini et al., US Patent No. 6,347,888 B1 by Puetz, and US Patent No. 6,471,412 B1 by Belenkiy et al.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 703-308-4802. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D Feild can be reached on 703-308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Any response to this action may be mailed to:

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

For additional information regarding this new address, which was effective May 1, 2003, see *Correspondence with the United States Patent and Trademark Office*, 68 Fed. Reg. 14332 (March 25, 2003).

Or Faxed to:

(703) 308-7722 or 308-7724

(informal or draft communications should be clearly labeled "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

Crystal Plaza 4, Fourth Floor (Receptionist)
2201 South Clark Place, Arlington, Virginia.

Hae M Hyeon
Examiner
Art Unit 2839

hnh

July 3, 2003

Hae Moon Hyeon